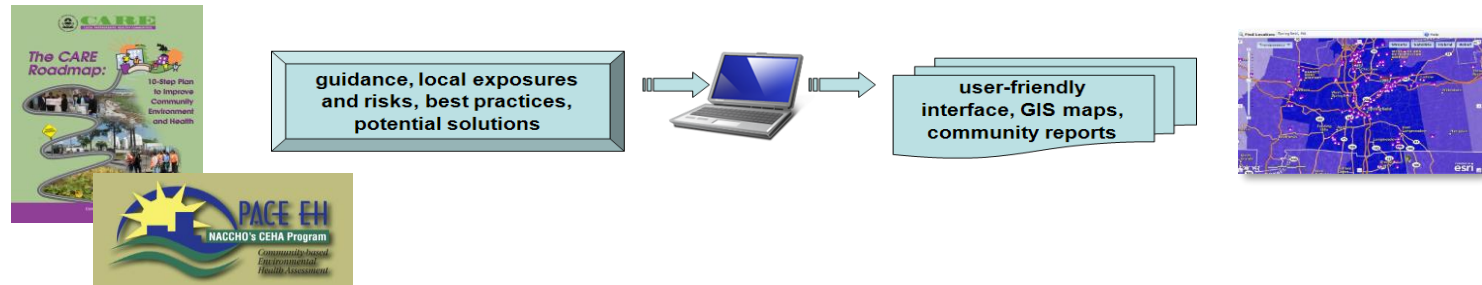




Community-Focused Exposure and Risk Screening Tool (C-FERST)

What is C-FERST?

C-FERST is an online information access and mapping tool



Communities can use C-FERST to

- Learn about environmental issues and exposures
- Compare conditions in their community with their county and state averages
- Explore exposure and risk reduction options
- Plan community-based assessments

Why C-FERST?

Communities and decision-makers face complex environmental issues...

- Numerous concerns, impacts and solutions
- Not enough experts to evaluate every situation
- Some have limited resources and access to information
- And may also have disproportionate impacts

Who Should Use C-FERST?

A Broad Range of Users:



Government:
Local, State, & Federal



Professionals &
Academics



Public:
Leaders &
Organizations

 In Partnership! Learning and Working Together

Community-Focused Exposure and Risk Screening Tool (C-FERST)

Contact Us Share

View Your Community

[View Your Community's Environment Using C-FERST](#)



Questions and Answers

- [What is C-FERST?](#)
- [Who can or should use C-FERST?](#)
- [What can I use C-FERST for?](#)

Community-Focused Exposure and Risk Screening Tool (C-FERST) provides access to resources that can be used to help communities learn more about their environmental issues and risks. The options below show how to use C-FERST to view a community's environment, compare community environmental conditions, explore and learn about environmental issues, plan projects with community guides, and participate in the C-FERST User Forum.

View



- [View Your Community](#)
- [Maps](#)

Compare



- [Compare Your Community](#)
- [Community Data Table](#)

Explore



- [Explore and Learn](#)
- [Environmental Issues](#)
- [Exposure and Risk Reduction Options](#)

Getting Started

- [C-FERST Quick Start Guide](#)
- [Questions and Answers about C-FERST](#)
- See the [full disclaimer](#)
- [View C-FERST Limitations](#)

Plan Your Project



- [Community Guides](#)
- [CARE Roadmap](#)
- [PACE-EH Guidebook](#)

C-FERST Users



- [About C-FERST](#)
- [C-FERST User Forum](#)

Additional Resources



- [Additional Tools](#)
- [Citizen Science](#)
- [Environmental Measurement Methods](#)

Related EPA Tools

- [EnviroAtlas](#)
- [Environmental Justice Screening and Mapping Tool](#)

Under Development:

- [Community-LINE Source Model \(C-LINE\)](#)
- [Tribal-Focused Environmental Risk and Sustainability Tool](#)

Explore

The environmental issues

How does my community **compare** with County and State conditions?

View Maps of your community?

Plan Your Project Using Community Guides with C-FERST

C-FERST Users

Information About C-FERST
Connect with the User Forum

Where to Start?
Quick Start Guide shows the basics

What can we do about it?
Exposure and Risk Reduction options

More Resources
Other Tools, Citizen Science, Environmental Measurement Methods

Example Applications of C-FERST

- **First Look: EJSCREEN**
- **Local Partnerships** (health department, nonprofit, and schools)
- **Taking a Closer Look – C-FERST and EnviroAtlas**
- **Ground Truthing** – Local knowledge, Citizen Science
- **Decision Making** – Decision support tools



Examples of C-FERST Use (1)

- **Houseless community**
 - Check for EPA registered facilities, access to transit stops, and proximity to SNAP retailers
 - They found a hazardous waste facility on the site and were able to return to city officials to request re-assessment of the location
- **Social work class**
 - Conduct a Children's health and wellness study of their community
 - Identify potential sources of social and environmental stress such as exposure to Diesel PM, poverty; access to WIC retailers and dentists
 - Presented recommendations to local government and community representatives

Maps: Houseless Site

There's a hazardous waste site (old dry cleaner site) at the proposed location.

By clicking on the hyperlinked address, we can access a detailed Facility Registry Services (FRS) report.

Legend

- EPA Registered Facilities (Sites)
 - Integrated Compliance Information System-Air Major (ICIS-Air)
 - Air Quality Monitoring (AQS)
 - Superfund National Priorities List (SEMS NPL)
 - Major Water Discharger
 - Hazardous Waste (Active)

Environmental Interests

Information System	System Facility Name	Information System Id/Report Link	Environmental Interest Type	Data Source	Last Updated Date	Supplemental Environmental Interests
OREGON - DEPARTMENT OF ENVIRONMENTAL QUALITY	GRANDCHILD INC DBA NIFTY DRYCLEANER	2179 [EXIT Disclaimer]	STATE MASTER	OR-DEQ		OR-HWMS-1122 CESQG HAZWASTE-1122 CESQG
RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM	NIFTY DRYCLEANER	ORD987187721	CESQG (Y)	RCRAINFO	06/02/2014	

Additional EPA Reports: [MyEnvironment](#) [Enforcement and Compliance](#) [Site Demographics](#) [Facility Coordinates Viewer](#) [Environmental Justice Map Viewer](#) [Watershed Report](#)

Standard Industrial Classification Codes (SIC)

Data Source	SIC Code	Description	Primary
OR-DEQ	7216	DRYCLEANING PLANTS, EXCEPT RUG CLEANING	

National Industry Classification System Codes (NAICS)

Data Source	NAICS Code	Description	Primary
OR-DEQ	812320	DRYCLEANING AND LAUNDRY SERVICES (EXCEPT COIN-OPERATED).	
RCRAINFO	81232	DRYCLEANING AND LAUNDRY SERVICES (EXCEPT COIN-OPERATED)	
OR-DEQ	081232		

Facility Codes and Flags

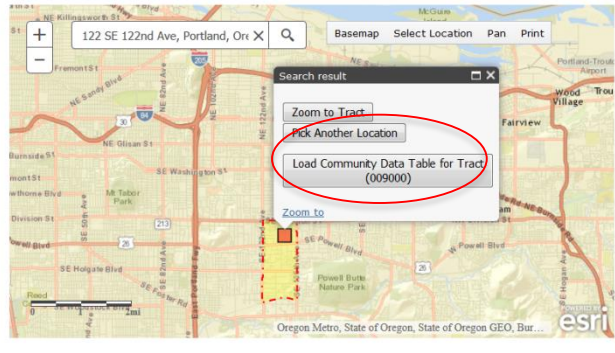
Facility Mailing Addresses

Affiliation Type	Delivery Point	City Name	State	Postal Code	Information System
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Community Data Table (CDT)

C-FERST Community Data Table

Please note that selecting your location will result in the Community Data Table opening in a new window or tab. Please check your personal browser settings to ensure the pop-up option is enabled.



The CDT shows us that our community has higher levels of some air toxics than the county or state averages.

Indicators and Indices	Tract 009000	Multnomah County	Oregon
▼ Environmental Concentration Estimates			
Outdoor Air - Acetaldehyde ($\mu\text{g}/\text{m}^3$)	1.9	1.8	1.1
Outdoor Air - Acrolein+ ($\mu\text{g}/\text{m}^3$)	0.13	0.12	0.03
Outdoor Air - Arsenic ($\mu\text{g}/\text{m}^3$)	0.0001	0.0001	0.0000
Outdoor Air - Benzene ($\mu\text{g}/\text{m}^3$)	1.8	1.4	0.5
Outdoor Air - Butadiene ($\mu\text{g}/\text{m}^3$)	0.22	0.19	0.05
Outdoor Air - Chromium ($\mu\text{g}/\text{m}^3$)	0.0000	0.0001	0.0000
Outdoor Air - Diesel PM ($\mu\text{g}/\text{m}^3$)	1.5	1.6	0.3
Outdoor Air - Formaldehyde ($\mu\text{g}/\text{m}^3$)	2.10	1.93	0.96
Outdoor Air - Lead ($\mu\text{g}/\text{m}^3$)	0.001	0.001	0.000
Outdoor Air - Naphthalene ($\mu\text{g}/\text{m}^3$)	0.18	0.13	0.03
Outdoor Air - PAH ($\mu\text{g}/\text{m}^3$)	0.010	0.007	0.002
▶ Human Exposure Estimates			
▶ Health Risk Estimates			
▼ Demographic, Social and Economic Indicators			
% Minority	44.7	27.8	21.6
% Below Poverty Level	25.4	17.1	15.5
% Low Income (<2x poverty level)	59.0	35.6	35.4
% Less than Age 5 years	10.5	6.3	6.1
% Less than 18 Years	29.2	20.5	22.5
% > 64 years	9.1	10.7	14.1
% >= 25 years with less than a H.S. degree	24.0	10.5	10.8
% Linguistically Isolated Households	17.1	4.8	3.0
% Population American Indian and Alaskan Native	0.2	1.0	1.4
% Population American Indian and Alaskan Native below poverty	0.0	35.9	28.8

Click here to learn about Diesel PM.

Issue Profiles: Diesel PM

By following these links, we can gather helpful information.

C-FERST

- C-FERST Home
- Questions and Answers
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 - View Maps
- Compare Your Community
 - Community Data Table
- Explore and Learn
 - Issue Profiles
 - Exposure and Risk Reduction Options
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 - Environmental Measurements

[Contact Us](#)
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C-FERST Issue Profile: Diesel Exhaust

Diesel exhaust is a mixture of gases and particulates produced during combustion of diesel fuel in the engines of cars, trucks, buses, locomotives, marine vessels and heavy equipment.

The most common exposure pathway is inhalation of air containing diesel particulate matter. Based on human and laboratory studies, there is considerable evidence that diesel exhaust is a likely carcinogen.

Short-term exposure to diesel exhaust may cause eye, nose, throat and lung irritation; neurological effects such as lightheadedness; cough; and nausea. It can also worsen asthma. Long-term exposure in animal inhalation studies have resulted in lung inflammation and immunological effects. Human epidemiological studies have shown an association between diesel exhaust exposure and increased lung cancer rates.

Learn more about diesel exhaust by exploring the links below.

General Information

- [Diesel Particulate Matter](#)
- [National Clean Diesel Campaign](#)
- [Alaska Native Village Air Quality Fact Sheet: Diesel Fuel Use \(PDF\)](#) (2pp, 460KB, [About PDF](#))
- [EPA's Office of Transportation and Air Quality](#)

Sources

- [Learn About Clean Diesel](#)
- [Occupational Safety & Health Administration's Partial List of Chemicals Associated with Diesel Exhaust](#)
- ToxTown: National Institute of Health: [School Buses](#)

Exposure and Risk Reduction Options

- [Clean Diesel State Allocations](#)
- [Clean Diesel National Grants](#)
- [Verified Technologies for SmartWay and Clean Diesel](#)
- [Alaska Native Village Air Quality Fact Sheet: Diesel Fuel Use \(PDF\)](#) (2pp, 460KB, [About PDF](#))
- [NEJAC - Reducing Air Emissions Associated With Goods Movement: Working Towards Environmental Justice](#)

Example of C-FERST Use (2)

- Graduate program for environmental educators
 - Develop environmental curricula and activities for a STEM program
 - Taught middle and high schoolers about GIS, environmental science, and community health
 - Students could create and upload GIS map layer and pictures to C-FERST, assess community, and vision solutions
 - To date, three academic institutions have incorporated C-FERST into their classroom curriculum
- A community nonprofit organization and County agency
 - Identify the locations of Brownfields and potential uses for the properties
 - Developed a community livability study to assess recreation, transit accessibility and food justice as part of a neighborhood redevelopment plan

Where Can You Learn More?

<https://www.epa.gov/c-ferst>

Contact Us:

CFERSTmail@epa.gov



@EPAresearch



www.youtube.com/user/USEPAgov



www.facebook.com/EPAresearch



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